

Image-guided

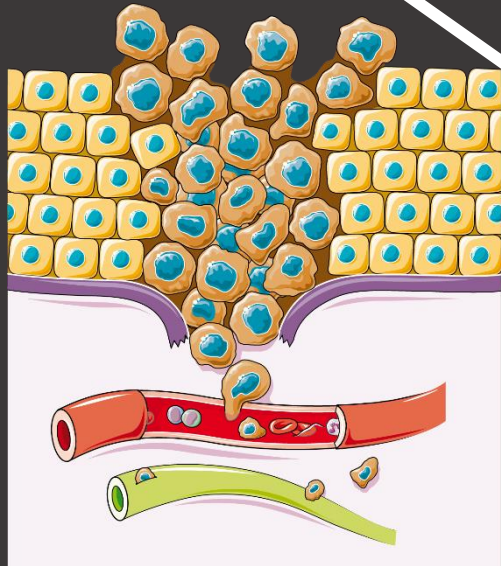
Endopancratic surgery

CAScINATION 
ENABLING PRECISION MEDICINE

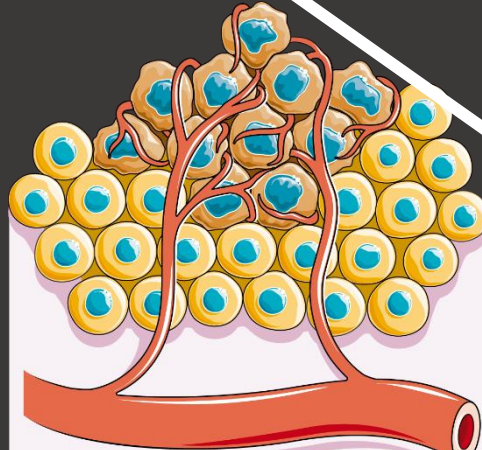
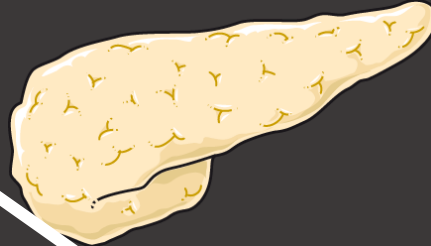
USZ Universitäts
Spital Zürich

Benjamin Eigl, Caroline Haslebach, Philip Müller

Medication
Surgery



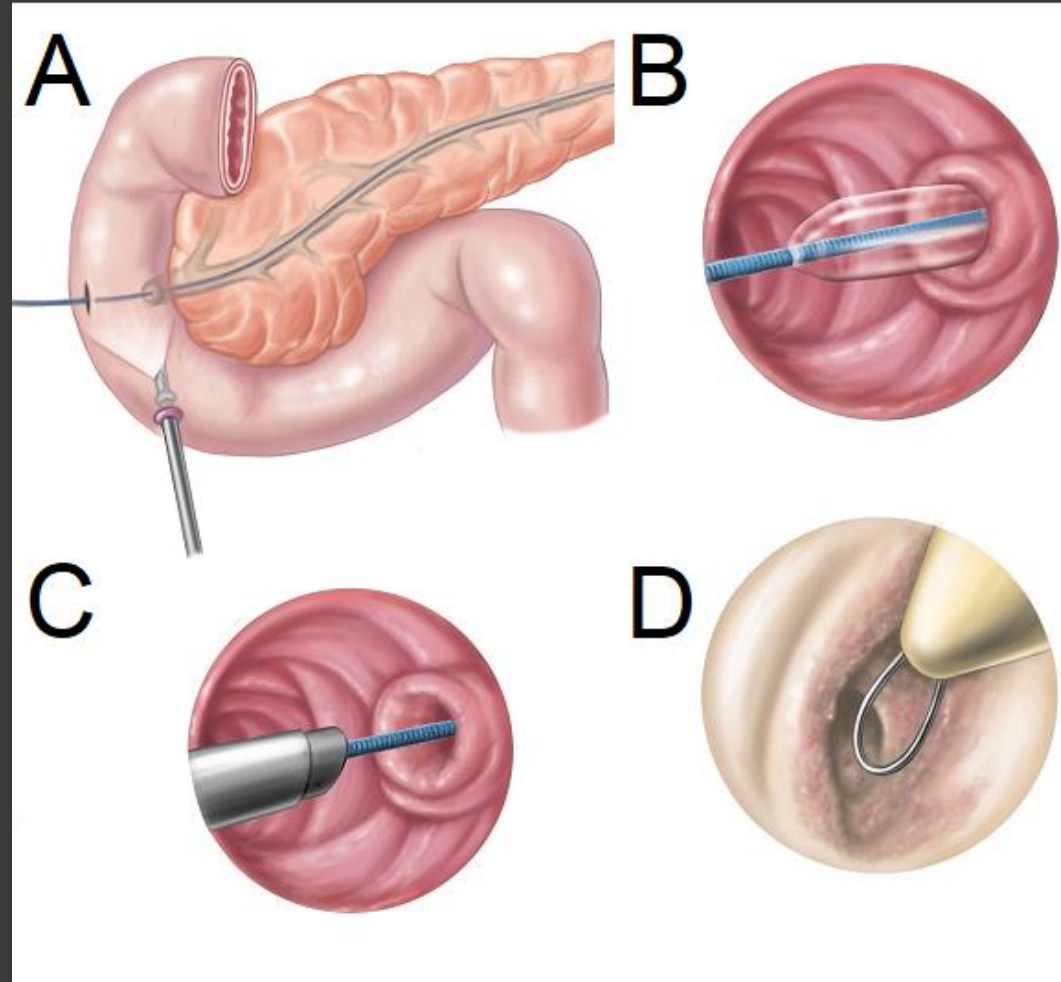
Chemo + -
radiotherapy



Surgery



Endopancreatic surgery



EndopanCAS project

1. Feasibility of surgical approach
2. Feasibility of computer-assisted resection
3. Clinical applicability

EndopanCAS project

1. Feasibility of surgical approach
2. Feasibility of computer-assisted resection
3. Clinical applicability

Transduodenal-transpapillary endopancreatic surgery with a rigid resectoscope: experiments on ex vivo, in vivo animal models and human cadavers.

Müller PC¹, Steinemann DC², Nickel F², Chinczewski L², Müller-Stich BP², Linke GR^{2,3}, Z'graggen K⁴.

EndopanCAS project

1. Feasibility of surgical approach
2. Feasibility of computer-assisted resection
3. Clinical applicability

Challenges

Decreased field of view

Risk of perforation

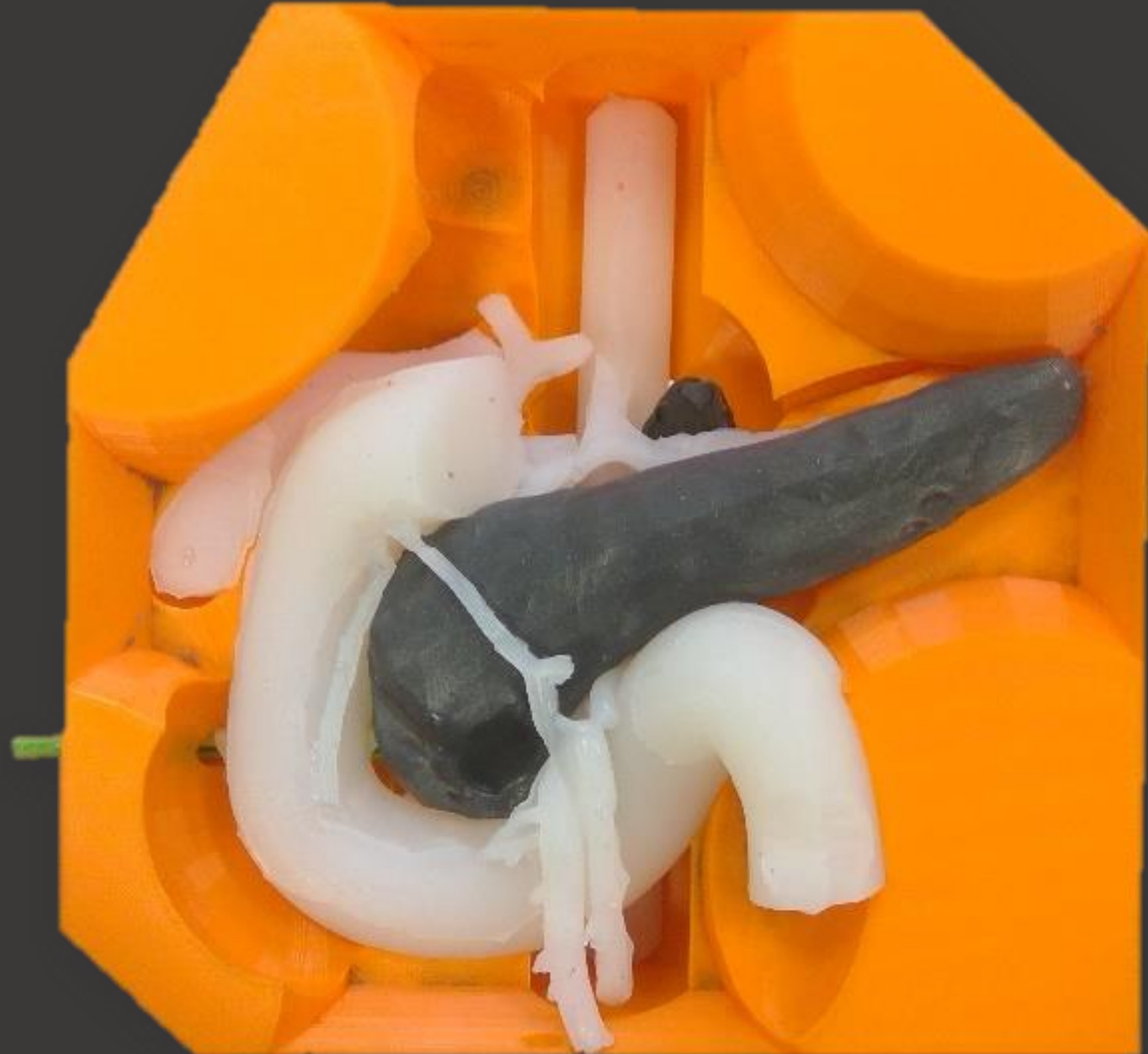
Lack of orientation

Study

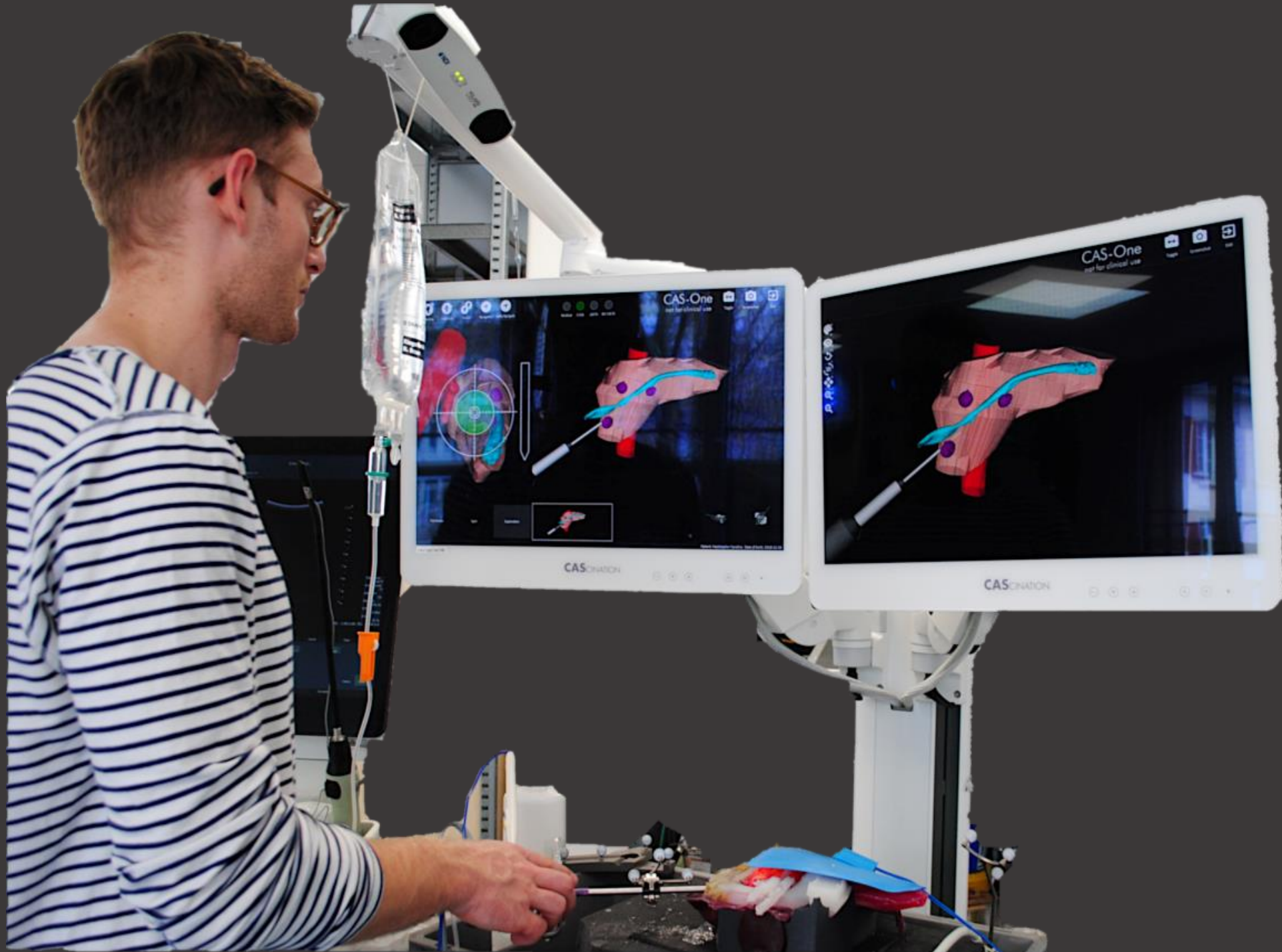
Computer-assistance in EPS

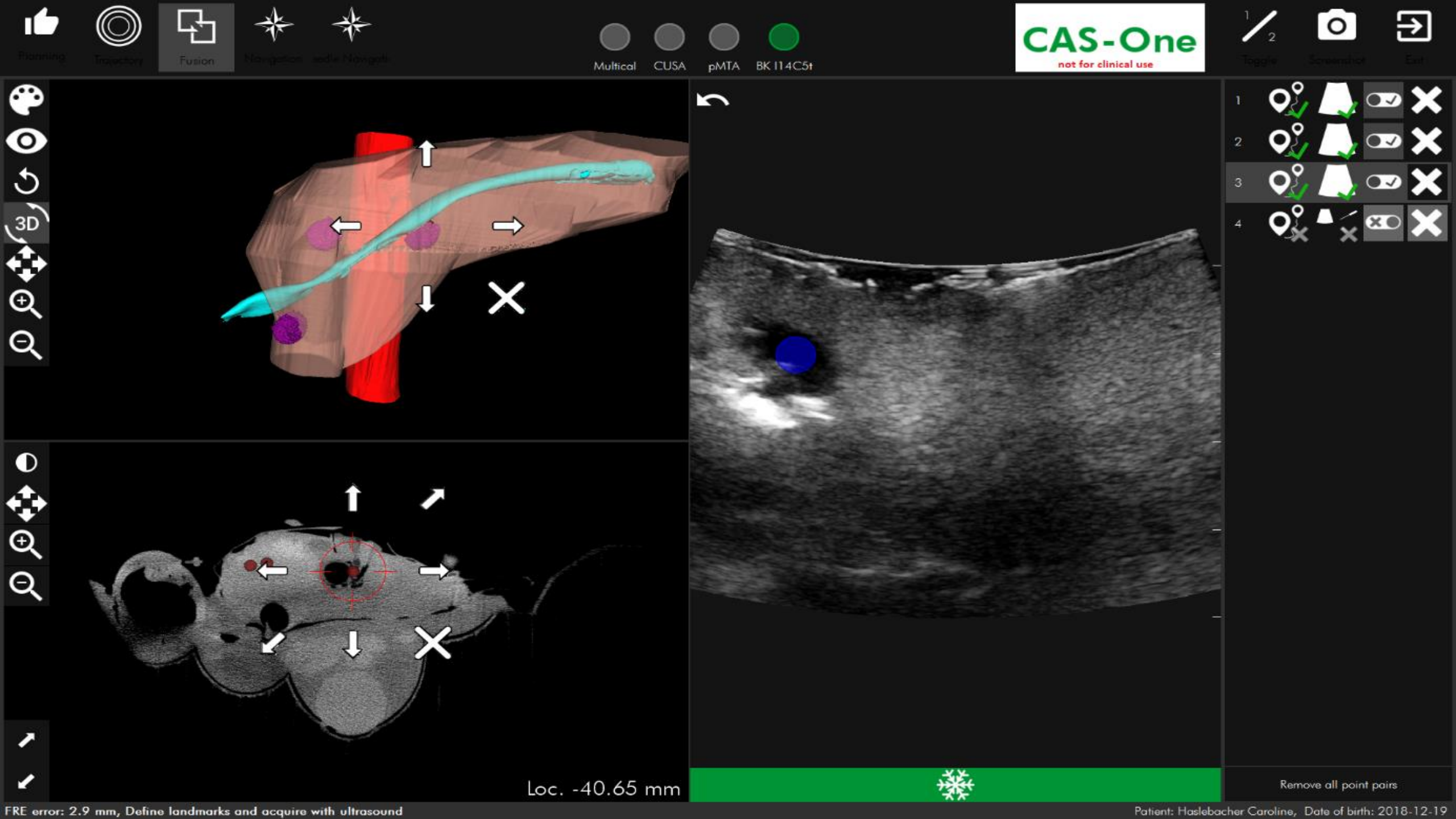
Registration techniques

Navigated resection







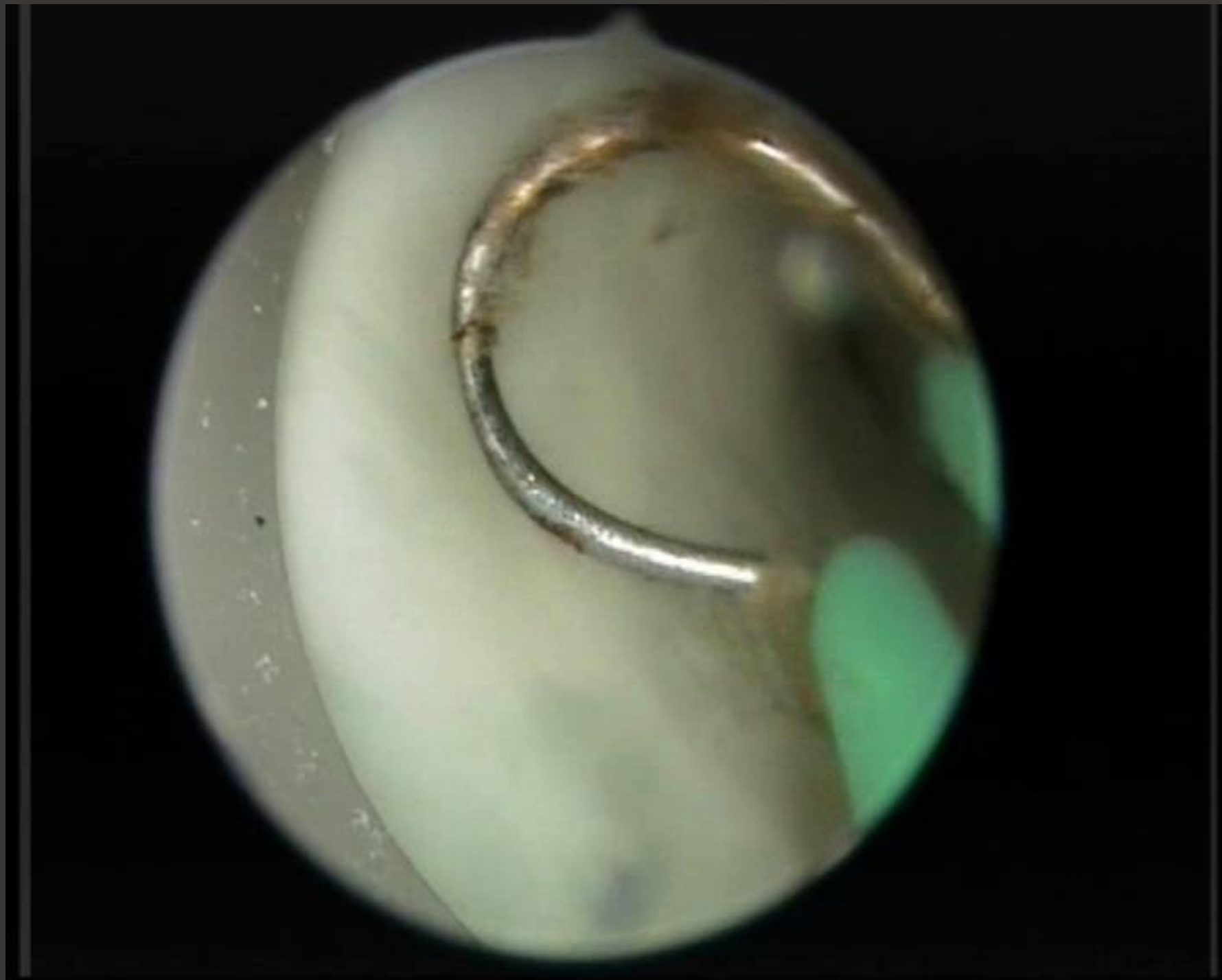


Resection

US registration

Mark invisible tumours

CBCT validation



Collection

Structures

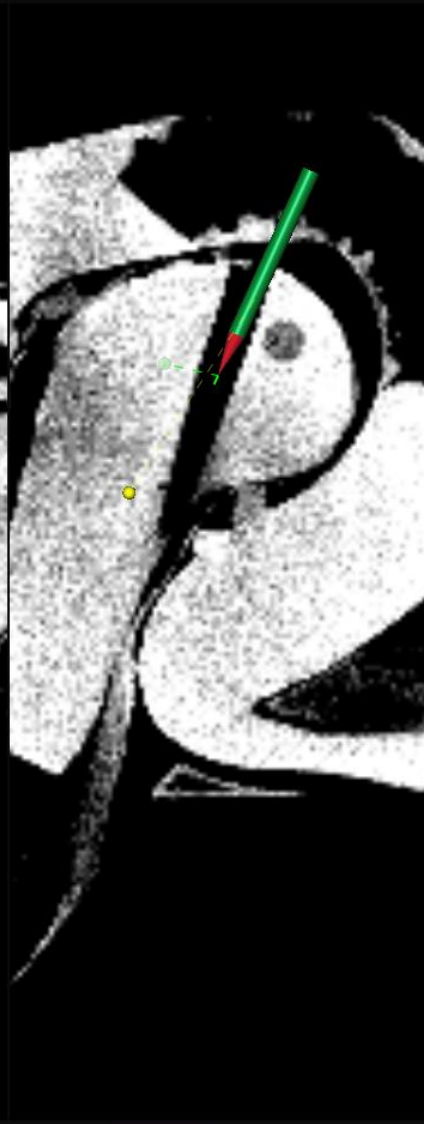
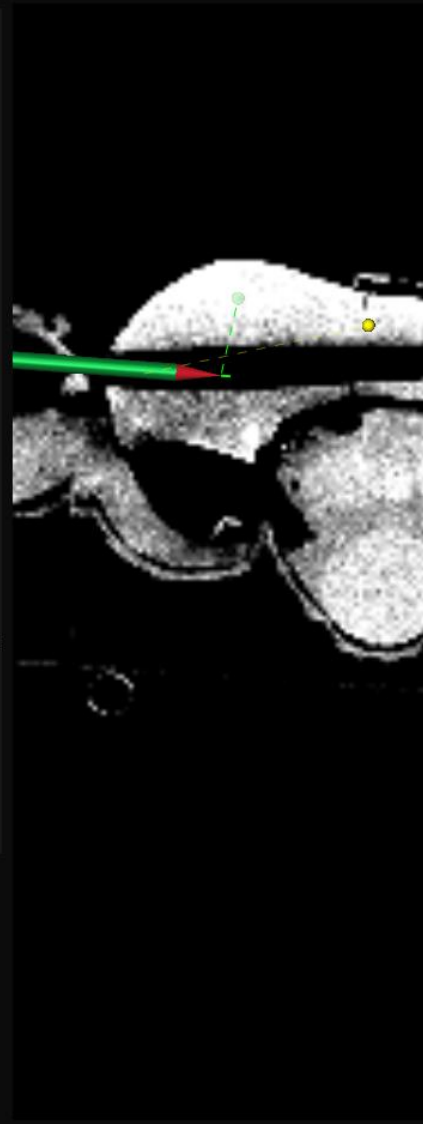
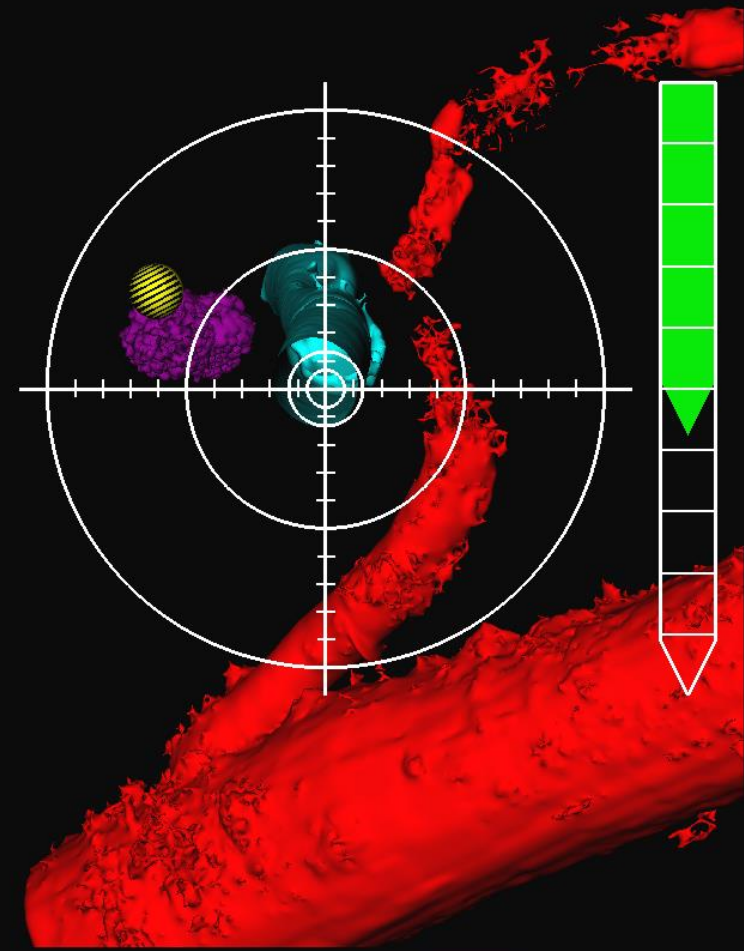
Reset

3D Rotate

Pan

Zoom

Zoom



System

Parameters

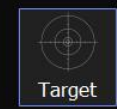
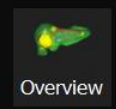
Targets

▶ 0

▶ 1

Target information

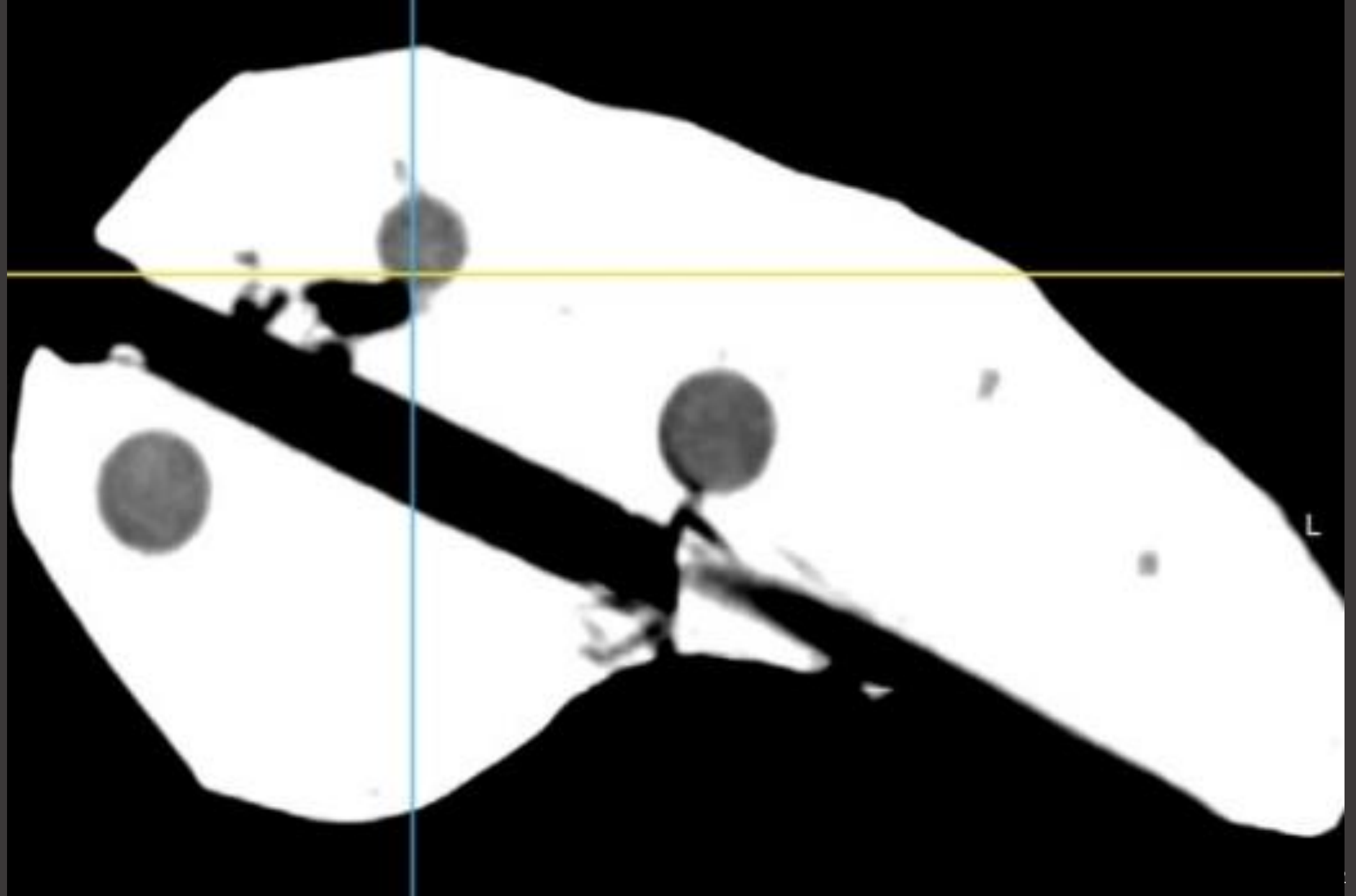
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Parent	No parent
Modality	Three-D Model



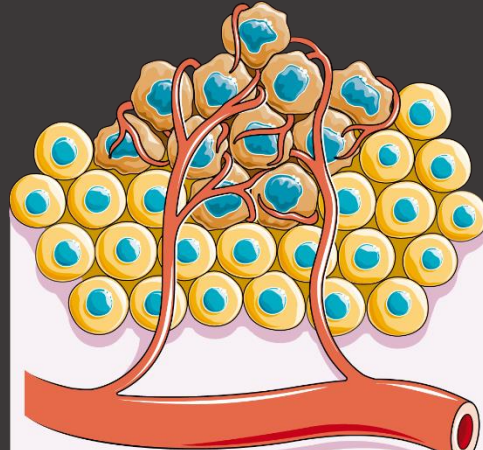
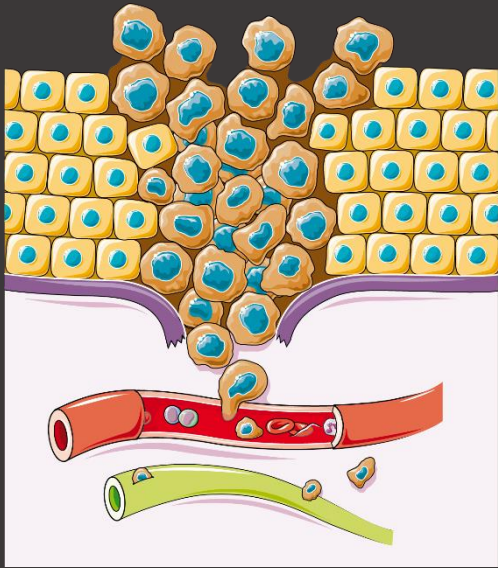
+ ADD TARGET



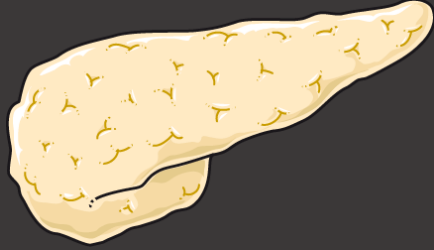
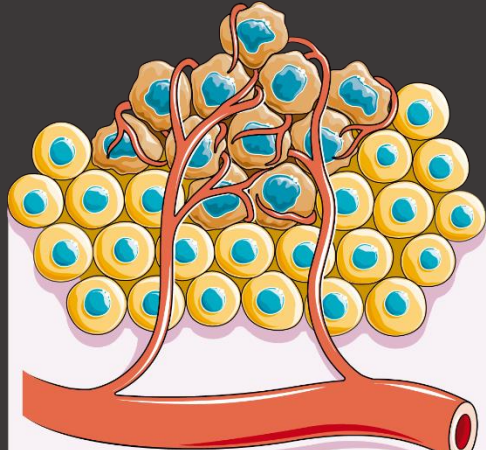
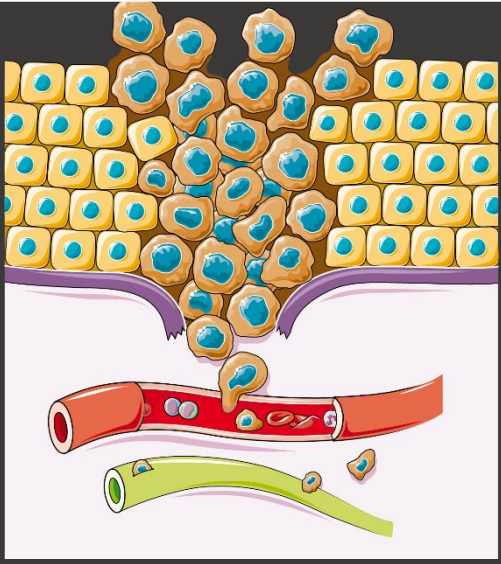
ABLATE 21







Enable minimally-invasive treatments

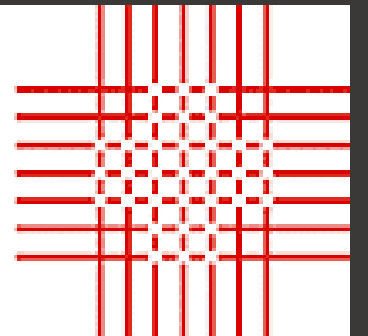


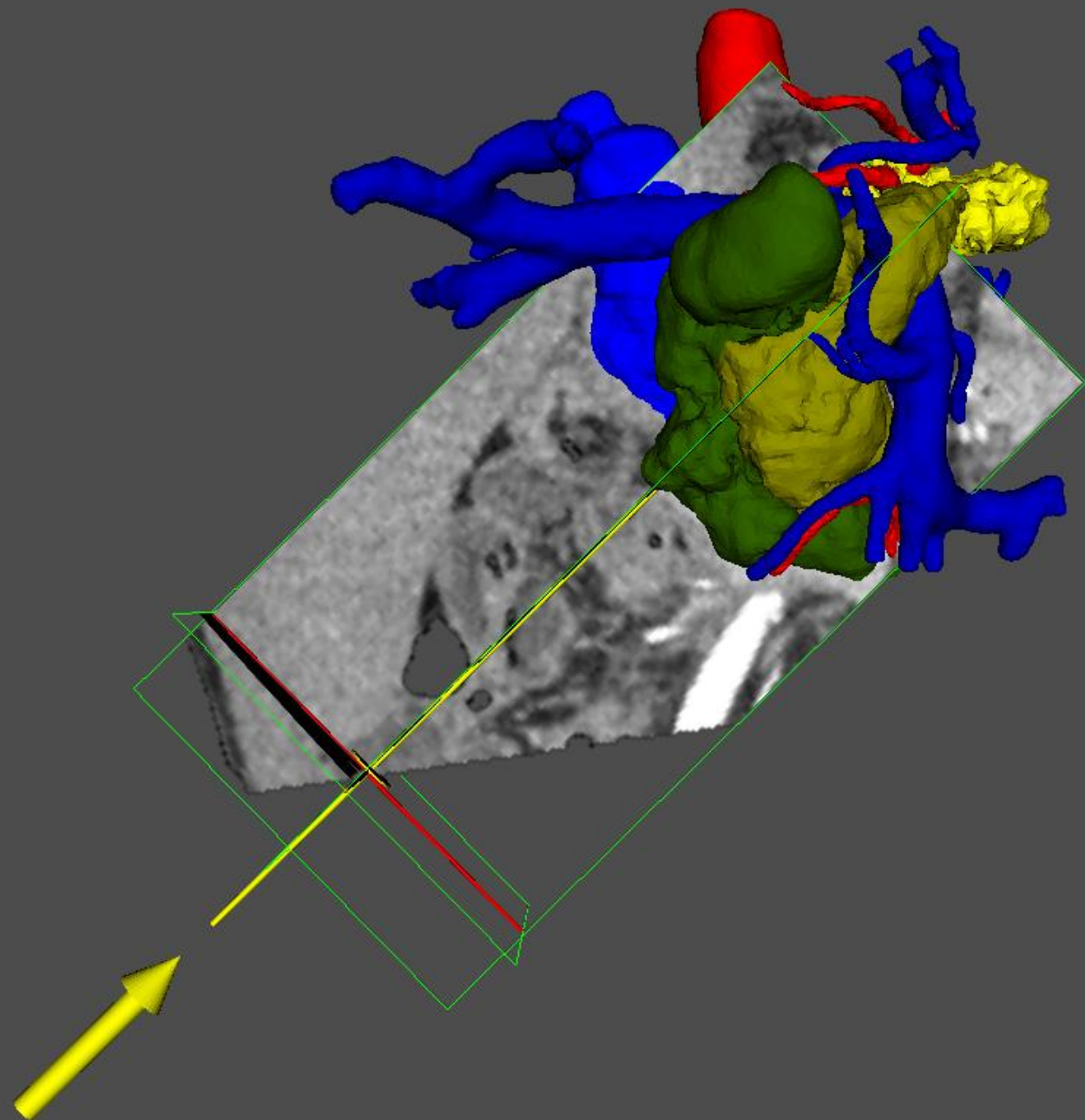
Acknowledgements

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Schweizerische Pankreasstiftung
Fondation Pancréas Suisse
Fondazione Pancreas Svizzera
Swiss Pancreas Foundation







Toggle

Screenshot

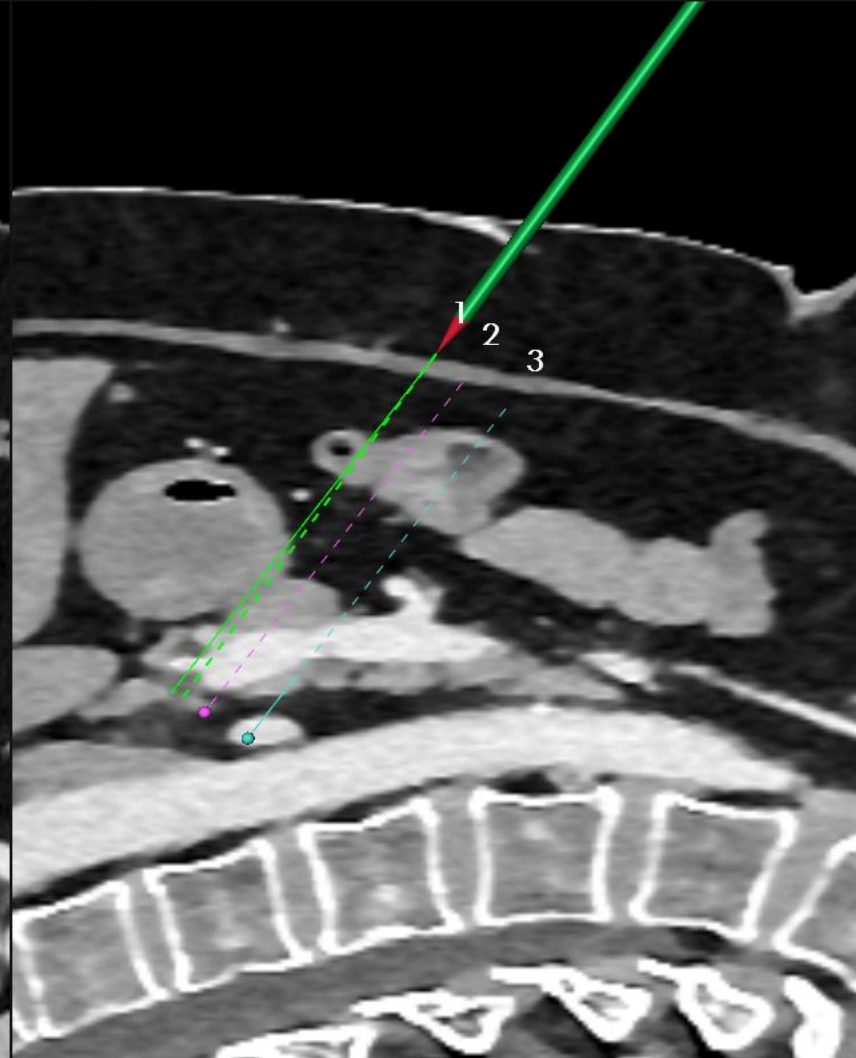
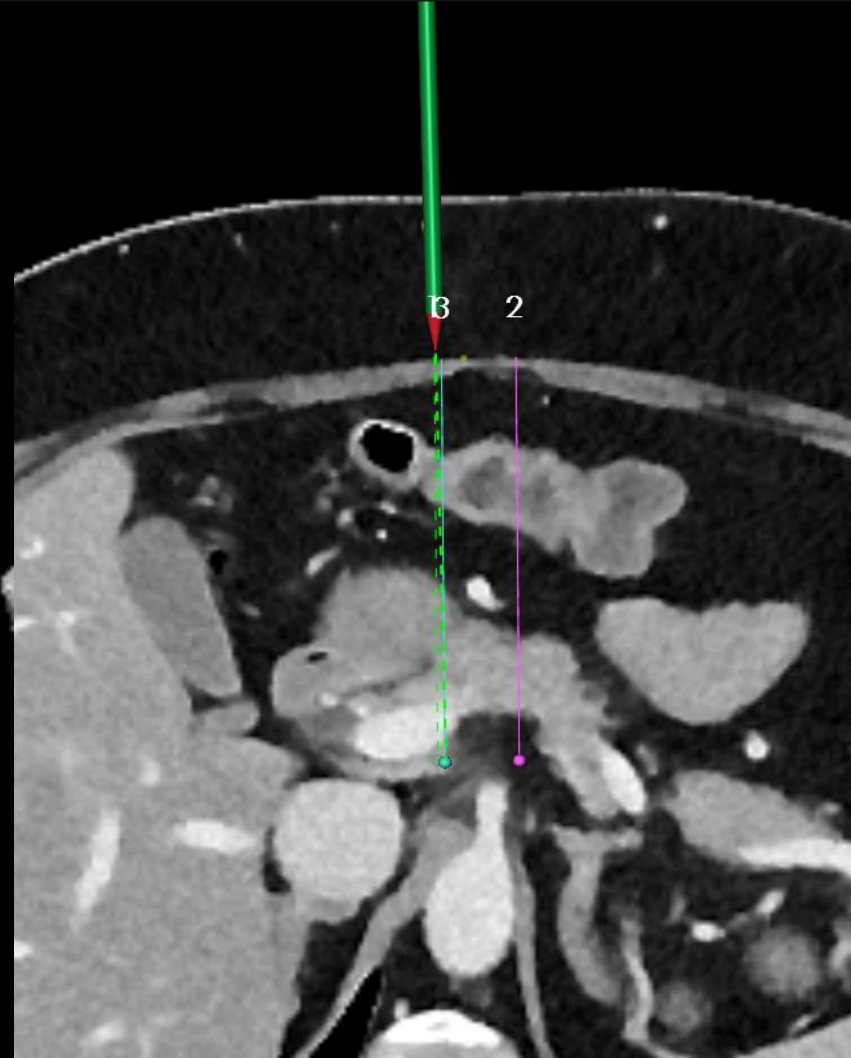
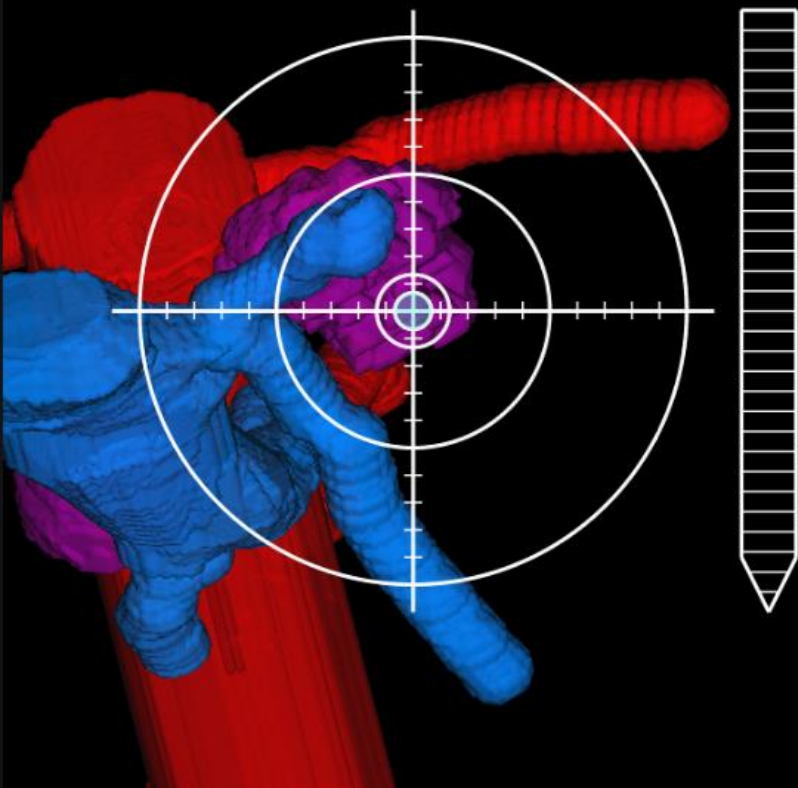
Exit

Multical

CUSA

pMTA

BK 114C5t



Pathfinder

Spot

Exploration

